Washington State Department of Transportation

Memorandum

July 24, 2002

TO: Don Whitehouse, South Central Region Administrator

FROM: I-90 Snoqualmie Pass East Interdisciplinary Team / Project Manager

SUBJECT: I-90 Snoqualmie Pass East
Preliminary Recommendation of Alternatives

The Interdisciplinary Team (IDT) met on October 24, 2001 and again on December 6, 2001 to complete the analysis of the preliminary alternatives and make recommendations. Over the prior six months, the IDT had further developed the three preliminary corridor alternatives, the Split Route, New Route, and Common Route, as well as several variations and options.

The IDT utilized a screening process with multiple criteria to evaluate each alternative or variation based on known information. The evaluation of these alternatives is documented in several technical memorandums that describe the route concepts and anticipated impacts. Based on this evaluation, the IDT recommends that a Draft Environmental Impact Statement (DEIS) be prepared to study three alternatives in addition to the no-build option. The IDT also recommends that the DEIS be prepared without choosing a preferred alternative.

Alternatives to be Considered

Each of the three "build" alternatives recommended for further evaluation is a variation of the Common Route alternative, which proposes to construct six lanes of interstate freeway along the approximate alignment(s) of the existing facility. All alternatives will reconstruct the corridor to full WSDOT standards for the applicable design speed. Additional standards and guidelines will be developed to ensure that the proper level of treatment is provided for roadside safety features, aesthetics, ITS/information systems, architectural elements, and other design considerations.

The alternatives begin at milepost (MP) 55.1 adjacent to the WSDOT Hyak Maintenance facility and proceed southeast for 15 miles ending at the West Easton Interchange at MP 70.0.

Alternative 1

This alternative upgrades the mainline alignment to a 70 MPH design standard. Listed below in a west to east order, are significant improvements or major construction features:

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- This alternative includes the replacement of the Coal Creek bridges on I-90, the USFS road, and the SR906 Spur. Additional work in Coal Creek adjacent to the WSDOT maintenance facility, the State Parks Hyak Lodge, and the USFS boat ramp access road would also be required in order for the larger bridges on the I-90 mainline to be of benefit.

- Long bridges would be constructed across Gold Creek, both on I-90 and on the USFS road, to improve connectivity and allow Gold Creek to meander within the historic floodplain. The alignments are shifted southerly into Lake Keechelus to maintain sight distance along the new longer bridges.

- Longer chain on/off areas would be added just east of Gold Creek and new bridges would be constructed at Rocky Run Creek to replace the existing bridge and arched culverts.

- To alleviate avalanche hazards and improve the horizontal alignment, two 10,100 foot long tunnels would be constructed beginning near Wolfe Creek at MP 57.2 and ending near Resort Creek at MP 59.4. The existing roadway along Lake Keechelus would be reclaimed. This tunnel would require substantial mechanical and support facilities located at each portal.

- New larger culverts would be installed at Price Creek and Noble Creek. These creeks cross beneath the mainline and existing rest areas at the northwesterly end of each rest area. Evaluation of different sites along I-90 between MP 30 and MP 60 for the placement of a new safety rest area is being conducted. This alternative allows for the Price Creek site to be expanded to current standards and put into operation.

- The profile grade of the mainline will be raised east of Price Creek and new bridges for connectivity constructed in the vicinity of the Swamp Creek drainage.

- Stampede Pass interchange would be reconfigured to an overpass with approximately the original footprint. The Cabin Creek I/C would be reconstructed with the ramp and crossroad grades raised in order to replace the low clearance bridge.

- Alignments on Easton Hill from Cabin Creek Interchange to the top of the hill would be separated by a median section and terraced using retaining walls.

- The alignments just east of the top of Easton Hill would be built parallel and bridges would be constructed over a natural draw to form an animal crossing at MP 67.5.

- At MP 69.1, Bridge 90/117N on the westbound alignment over the county road would be replaced. Bridge 90/117S on the eastbound alignment would be widened.

- Both bridges over the Kachess River would be widened.

Alternative 2
This alternative upgrades the mainline alignment to a 70 MPH design standard similar to Alternative 1 but with substantial differences at select locations. Listed below are significant improvements or major construction features where different than Alternative 1:

- The bridges at Coal Creek would not be replaced
- Bridges built out in Lake Keechelus near the avalanche chutes would replace the snowshed. The existing snowshed and roadway would be removed to create a large chute allowing avalanches to pass beneath the bridges.
- Twin tunnels, 3200 feet in length, would be constructed only through Slide Curve (MP 58.6 o MP 59.4). The existing roadway would be salvaged as an eastbound bypass route for hazardous/flammable materials. This tunnel configuration would require an operations and maintenance facility located in close proximity to the tunnel most probably located near the eastern portal.
- Price Creek rest area (snow park) would be removed and reclaimed to a natural state or used as a mitigation site. This alternative would preclude using the Price Creek site for a future rest area or as a snow park.
- The profile grade of the mainline will be raised to allow new bridges for connectivity in both the Price/Noble Creek area and the Swamp Creek drainage.

Alternative 3
This alternative utilizes a 60 MPH design standard, which is acceptable in mountainous terrain. This alternative would require a posted speed limit of no higher than the 60 MPH design speed. Listed below are significant improvements or major construction features:

- The bridges across Gold Creek, both on I-90 and on the USFS road, would be replaced with longer structures to improve connectivity and allow Gold Creek to meander within a portion of the historic floodplain. The alignments stay within the existing footprint but the length of structures is limited to approximately 350 feet to maintain proper sight distance.
- Longer chain on/off areas would be added just east of Gold Creek and new bridges would be constructed at Rocky Run Creek.
- Bridges built out in Lake near the avalanche chutes would replace the snowshed. The existing snowshed and roadway would be removed to create a large chute allowing avalanches to pass beneath the bridges.
- Bridges would be constructed along the shoreline for both eastbound and westbound alignments between the avalanche chutes and slide curve.

- The eastbound alignment would be shifted southerly into Lake Keechelus near resort creek and would be constructed on embankment placed in the lake.

- New larger culverts would be installed at Price Creek and Noble Creek. These creeks cross beneath the mainline and rest areas at the northwesterly end of each rest area.

- The profile grade of the mainline will be raised east of Price Creek and new bridges for connectivity would be constructed in the vicinity of the Swamp Creek drainage.

- Stampede Pass interchange would be reconfigured to an overpass within the original footprint. Cabin Creek I/C would be reconstructed with the ramp and crossroad grades raised in order to replace the low clearance bridge.

- Alignments on Easton Hill from Cabin Creek Interchange at MP 64.2 to the top of the hill at MP 67.0.would be separated by a median section and terraced using retaining walls. The 60 MPH design speed would require shorter walls than the 70 MPH alternatives.

- At MP 67.5, a cut and cover type tunnel would be constructed on the westbound alignment to form an animal crossing. A roadway bridge over a shallow draw on the eastbound alignment would continue the crossing.

- At MP 69.1, the bridges over the county road would be widened for both east and westbound alignments.

- Both bridges over the Kachess River would be widened.

No-Action Alternative

The no-action alternative would include periodic resurfacing of the existing roadway with Asphalt Concrete Pavement to maintain the route in the current configuration. Preliminary resurfacing recommendations set the interval between overlay projects at 4-6 years. Minor safety improvements as part of the ongoing operation of the facility would also be included.

Alternatives Considered but Rejected

The IDT recommends that the other preliminary alternatives including the Split Route, and the Rampart Pass and Roaring Ridge (Southside) variations of the New Route be eliminated from further study. This recommendation was not unanimous among IDT members concerning the rejection of the Roaring Ridge route and a Minority Opinion prepared by Floyd Rogalski of the US Forest Service is attached. Upon presenting Floyd with additional information regarding the Roaring Ridge route, Floyd gave his concurrence on the elimination of this alternative. A follow-up memo from the USFS documenting this decision is attached.

Other alternatives that have been considered but rejected include mass transit, and a stand-alone TDM/TSM alternative.

Major Impacts of Alternatives
The Common Route alternative will essentially follow the existing corridor. Therefore, impacts above baseline to both the built and natural environments, for most resources, are expected to be successfully avoided and/or minimized. Remaining areas of uncertainty, or where impacts may be significant, include potential impacts to threatened and endangered species (bull trout) in Lake Keechelus, extent and quality of wetlands to be impacted, potential recreation impacts and nearby sources for road-building material. Studies are currently underway to determine the extent of these impacts, and these studies will be completed prior to publication of the draft EIS. During the design phase, WSDOT will utilize the mitigation sequencing described in the Council on Environmental Quality NEPA regulations (23CFR 1500) to avoid, minimize and/or mitigate impacts to resources resulting from the proposed action. Attached to these recommendations is a table summarizing impacts of the alternatives based on current information.

Controversial Areas and Coordination
Several issues present the potential for controversy to arise regarding project alternatives. In particular, Ecological Connectivity and solutions that can address this need will require coordination and possible negotiations between WSDOT and the USFS, which is the federal land manager over the majority of property adjacent to the project to be included in a new permit and easement through the Wenatchee National Forest. This issue is also significant to several environmental and conservation groups including the Sierra Club and the Mountains to Sound Greenway Trust. Coordination on this issue is being accomplished by the inclusion of multiple resource agencies on the IDT, including the USFS, and by ongoing meetings with interested organizations.

Another potentially controversial area is the Gold Creek valley and the effects this project has on Bull Trout, a listed species under the Endangered Species Act. Early coordination with the US Fish and Wildlife Service has been initiated and a draft Planning Aid Letter has been received. When finalized, this will aid in determining the extent of project impacts and lead into formal consultation regarding mitigation and potential conservation measures.

Other issues which could raise controversy include; visual impacts of the project; material requirements and available sources; temporary impacts to traffic; and the potential impacts from construction of a safety rest area within the project limits. Coordination will be accomplished by developing standards and guidelines to address these issues with the input of key stakeholders.

One coordination issue that has recently arisen is the evaluation and inclusion of low-cost Transportation Demand Management/Transportation System Management (TDM/TSM) strategies with the project alternatives. A stand-alone TDM/TSM alternative has already been eliminated from consideration, as this low-cost limited construction alternative is usually relevant only for major projects proposed in urbanized areas over 200,000 populations. However, the US Environmental Protection Agency has requested that TDM/TSM strategies that have a potential to reduce demand on the facility or improve the efficiency be evaluated and

recommendations made on feasibility and implementation. We have committed to such an analysis and findings will be incorporated into the EIS.

These recommendations were originally submitted in February of this year but concurrence was postponed pending consultation with the USFS regarding the Roaring Ridge route. That issue has been resolved and documented accordingly; therefore these recommendations are again submitted for your consideration.

Respectfully submitted:

Randall Giles, Project Manager / IDT Chairman

Concurrence:

_____ _____

Don Whitehouse
South Central Region Administrator

Date

RSG
Attachments

cc: all w/attachments
I-90 IDT members:

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